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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/697,800	10/27/2000	Marcelo de C. Guimaraes	81153DMW	6014

1333 7590 04/23/2004

PATENT LEGAL STAFF  
EASTMAN KODAK COMPANY  
343 STATE STREET  
ROCHESTER, NY 14650-2201

EXAMINER

YE, LIN

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 04/23/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/697,800

Applicant(s)

GUIMARAES ET AL.

Examiner

Lin Ye

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 27 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4, 7-9, 11, 13-15 and 17-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Bogdanowicz et al. U.S. Patent 6,122,006 (Hereinafter refer as Bogdanowicz).

Referring to claim 1, the Bogdanowicz reference discloses in Figures 3-5, a method for converting an electronically originated image (digital image) into a modified electronic image simulating an image originated from a film system and converted into an electronically displayed image (See Col. 1, lines 38-50), said method comprising the steps of: providing a set of electronic camera system spectral product curves that are substantially approximated by a linear combination of a set of spectral product curves characteristic of the film system (e.g., mapping the digital image which having a unique spectral response of the image capture device through a transfer function which maps the digital image to image data representative of image data that a predetermined film; providing the mapped image data to a display; and displaying the linear image data with logarithmic brightness on the display device. See Col. 3, lines 15-23 and Col. 4, lines 1-12); capturing an image having red, green and blue exposure signals resulting from the electronic camera system spectral product

curves; and converting the red, green and blue exposure signals into a modified electronic image simulating an image originated from a film system and converted into an electronically displayed image (See Col. 3, lines 35-43, lines 53-64 and Col. 4, lines 1-12).

Referring to claims 2-3, the Bogdanowicz reference discloses an image sensor (CCD 80) having a set of image sensor spectral product curves (unique spectral response for three color channels), and wherein the step of providing a set of electronic camera system spectral product curves comprises modifying the set of image sensor spectral product curves by positioning one or more optical filters (colored filter array CFA) in front of the image sensor during the capture of the image (See Col. 3, lines 1-21).

Referring to claim 4, the Bogdanowicz reference discloses wherein the step of converting the red, green and blue exposure signals comprises the steps of converting (mapping) the exposure signals into equivalent film system exposure signals (See Col. 3, lines 35-43, and Col. 4, lines 1-12); transforming the equivalent film system exposure signals into monitor exposure signals, according to the color matching functions of a display device (See Col. 3, lines 65-67); applying film telecine transfer tone scale characteristics (e.g., for compensating for the type of media on which the previously selected film will project the captured images for permitting viewing of the motion picture in Figure 3, step S8, see Col. 3, lines 53-64) to the monitor exposure signals; and compensating the monitor exposure signals for the transfer characteristic of the display device (by gamma LUT, see Col. 4, lines 1-12).

Referring to claim 7, the Bogdanowicz reference discloses wherein the step of applying film telecine transfer tone scale characteristics to the monitor exposure signals is performed by application of one or more look up tables (output media LUT, see Col. 55-65).

Referring to claim 8, the Bogdanowicz reference discloses the step of displaying the compensated monitor exposure signals on the display monitor (See Col. 4, lines 1-12).

Referring to claim 9, the Bogdanowicz reference discloses the step of compensating for the transfer function of a display monitor is performed by one or more look up tables (gamma LUT, see Col. 3, lines 65-67).

Referring to claim 11, the Bogdanowicz reference discloses all subject matter as discussed with respected to same comment as with claim 1, and the reference also shows capturing an image having red, green and blue exposure signals resulting from the electronic camera system spectral product curves; converting the; exposure signals into equivalent film system exposure signals (e.g., by film characteristic lookup table, LUT, see Col. 3, line 27); mapping equal increments of film system exposure signals onto film code values( e.g., by output media LUT, see Col. 3, line 47); mapping the film code values to monitor code values in order that visual intensity differences between areas on the reproduction of a scene are proportional to the ratio of the exposure level of those areas as seen by the film system (e.g., by gamma LUT, see Col. 3, line 66); generating three monochromatic images, each monochromatic image revealing the exposure: content of one of the three color channels; and displaying one or more of the three monochromatic images in order to evaluate the exposure content of the scene (See Col. 3, lines 15-23, lines 35-43, lines 53-64 and Col. 4, lines 1-12).

Referring to claim 13, the Bogdanowicz reference discloses all subject matter as discussed with respected to same comment as with claim 1.

Referring to claims 14-15, the Bogdanowicz reference discloses all subject matter as discussed with respected to same comment as with claim 2-3.

Referring to claim 17, the Bogdanowicz reference discloses all subject matter as discussed with respected to same comment as with claim 1.

Referring to claims 18-19, the Bogdanowicz reference discloses all subject matter as discussed with respected to same comment as with claim 2-3.

Referring to claim 20, the Bogdanowicz reference discloses all subject matter as discussed with respected to same comment as with claim 1.

Referring to claim 21-22, the Bogdanowicz reference discloses all subject matter as discussed with respected to same comment as with claim 1.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-6, 16 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bogdanowicz et al. U.S. Patent 6,122,006 in view of Parulski et al. U.S. Patent 5,001,663.

Referring to claims 5-6, the Bogdanowicz reference discloses all subject matter as discussed in respected claims 1 and 4, except that the references does not explicitly show the steps of converting the exposure signals into equivalent film system exposure signals and transforming the equivalent film system exposure signals into monitor exposure signals are performed by application of matrix instead application of look up tables (LUT).

The Parulski reference discloses in Figure 1, a color video signal processing system uses an application of matrix to transform the electronic captured exposure singles into another desired spectral characteristic system (i.e. film or display monitor, see Col. 4, lines 51-52). The Parulski reference is evidence the one of ordinary skill in the art at the time to see more advantage for using matrix operations is that they are inexpensive and also simpler than look-up tables to implement in hardware (Col. 1, lines 47-50; and it also should be noted that the applicant has admitted this obvious set forth motivation in specification, page 12, lines 10-14). For that reason, it would have been obvious to see the steps of converting the exposure signals into equivalent film system exposure signals and transforming the equivalent film system exposure signals into monitor exposure signals are performed by application of matrix disclosed by Bogdanowicz.

Referring to claim 16, the Bogdanowicz and Parulski reference discloses all subject matter as discussed with respected to same comment as with claims 5-6.

Referring to claim 23, the Bogdanowicz and Parulski reference discloses all subject matter as discussed with respected to same comment as with claims 5-6.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bogdanowicz et al. U.S. Patent 6,122,006 in view of Giorgianni et al. U.S. Patent 5,582,961.

Referring to claim 10, the Bogdanowicz reference discloses all subject matter as discussed in respected claim 1, and a maximum variation, in exposure stops, between exposure values captured as electronically originated images and converted into equivalent film system exposure signals and exposure values yielded from the film system (e.g., as a

calibration to compensated for permitting the emulation of the spectral response of the film, see Col. 3, lines 19-23). However, the reference does not explicitly show a noise-gain factor of a matrix used to convert the electronically originated images into equivalent film system exposure signals.

The Giorgianni reference discloses a method to use a noise-gain factor to transform from the electric spectral sensitivities of a video camera to the color-matching functions which corresponds to the primaries of the output device or medium (e.g. film, see Col. 8, lines 20-50). The Giorgianni reference is evidence the one of ordinary skill in the art at the time to see more advantage for using noise-gain factor that serves as a metric to indicate how much noise is being introduced in the reproduction that takes electronic camera system exposures into film system exposures (e.g., it also should be noted that the applicant has admitted this obvious set forth motivation in specification, page 17, lines 10-22). For that reason, it would have been obvious to see the steps of the noise-gain factor of a matrix used to convert the electronically originated images into equivalent film system exposure signals disclosed by Bogdanowicz.

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bogdanowicz et al. U.S. Patent 6,122,006 in view of Hata U.S. Patent 6,100,928.

Referring to claim 10, the Bogdanowicz reference discloses all subject matter as discussed in respected claim 11, except that the reference does not explicitly a image processing unit for adjusting the gain of the digital camera (70) in order to define a triplet (red, green and blue colors) of code values that define a point of normal exposure.



Art Unit: 2612

The Hata reference discloses in Figures 1 and 5, a digital camera including a digital processing section (IPP 107, see Col. 9, lines 41) comprising a digital gain adjusting unit (1075, see Col. 8, lines 5-11) for adjusting the gain of the camera in order to define a triplet of code values that define a point of normal exposure. The Hata reference is evidence the one of ordinary skill in the art at the time to see more advantage to use a gain control for adjusting a gain of the camera so that appropriate exposure control can be in a broad range and significantly suppressing the quantization error that becomes an exposure error when the shutter speed become higher (See Col.4, lines 30-36). For that reason, it would have been obvious to see a image processing unit for adjusting the gain of the digital camera (70) in order to define a triplet (red, green and blue colors) of code values that define a point of normal exposure disclosed by Bogdanowicz.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Lin Ye** whose telephone number is **(703) 305-3250**. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R Garber can be reached on (703) 305-4929.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, DC. 20231

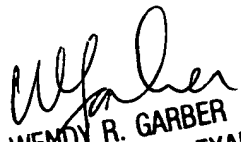
Or faxed to:

(703) 872-9306

Art Unit: 2612

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive,  
Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding  
should be directed to the Technology Center 2600 Customer Service Office whose telephone  
number is (703) 306-0377.

  
WENDY R. GARBER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

Lin Ye  
April 16, 2004